

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph starting on page 1, line 11 with the following amended paragraph:

The present invention relates to a mobile station receiving method and receiver for a mobile station and a communication system on a down channel in a CDMA (Code Division Multiple Access) cellular system, wherein a plurality of signals modulated by pseudo noise sequences ~~which~~ are orthogonal with each other.

Please replace the paragraph starting on page 3, line 27 with the following amended paragraph:

Due to interference caused by the channel distortion, signal components of ~~different~~ different decoding timings are received. Figure 7 is an example of the waveform measured by code timing detection unit 106, when a plurality of undesired signals such as signals directed to other terminals are included. For simplicity, signal components from ~~different~~ different propagation paths are separately indicated, as well as the desired signal and undesired signal.

Please replace the paragraph starting on page 5, line 23, and ending on page 6, line 1, with the following amended paragraph:

In this communication system, the mobile station comprises a frequency conversion unit for converting the signal receive[[d]] by an antenna into a base band signal, a propagation channel estimation unit for detecting a frequency characteristic of the radio channel on the basis of the ~~output~~ output from the frequency conversion unit, a filter unit for generating the inverse characteristic of the radio channel, and a decoding unit for decoding the output from the filter unit.

Please replace the paragraph starting on page 8, line 15 with the following amended paragraph:

Figures 8 and 9 show embodiments of equalizing filter 203 and channel estimation unit 204, respectively. Equalizing filter 203 as shown in Figure 8 is a feed forward filter with “n” ~~taps~~ taps. As shown in Figure 8, the base band signal outputted from frequency conversion unit 202 goes through delay circuits T2031 to 2033 which are connected in series. The outputs from delay circuits are multiplied by tap weight coefficients W1 to W3, respectively, and then added in adder 2038. The output from adder 2038 is outputted toward de-spreading unit 205 and code timing detection unit 206.

Please replace the paragraph starting on page 10, line 1 with the following amended paragraph:

However, the interference disappear[[s]] at the sample points where the received signal become maximum, because the channel distortion is equalized as shown in Figure 2 in the receiving system for mobile station of the present invention.

Please replace the Abstract with the following Abstract:

ABSTRACT

An object of the present invention is to prevent degradation of communication quality and decrease of manageable number of mobile terminals due to interference by signal components received at different timings under channel distortion. The present invention is directed to a mobile station receiving method on a down channel in a CDMA (Code division Multiple Access) cellular system in which a base station modulates, by using a orthogonal pseudo noise sequences, transmission signals towards a plurality of mobile stations, transmits the modulated signals synchronously,

while the mobile stations receive the modulated signals distorted by a plurality of radio channels of which delay times are different. The modulated signals transmitted by the base station are equalized and demodulated by using a filter of which frequency characteristics ~~is~~ are inverse to that of the radio channels.